

SPECIFICATION:

Revise the title of the invention as follows:

--Method of Changing Program of ~~Remote~~Network Node Remote from  
Network Management System~~in Network~~—

Replace the paragraph bridging pages 10 and 11 with the following paragraph:

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-- In the event that the NMS 10 attempts to change the program of each of the nodes (21), (22), (23) and (24) arranged in the loop-shaped transmission network, the program of the NE 1 (21) is initially changed. Thus, the NMS 10 transmits a new changing program data along with a control signal in order to change the program of the NE 1 (21). In the following description, the control signal transmitted from the NMS 10 to change the program of each node is referred as “a ~~program-changing~~data-changing signal”. When the NE 1 (21) receives the “~~program-changing~~data-changing signal” and the new changing program data from the NMS 10, the new changing program data is stored in the memory included within the NE 1 (21), then the program in the NE 1 (21) is changed under the control of the “~~program-changing~~data-changing signal” transmitted from the NMS 10. Accordingly, the program of the NE 1 (21) is changed to the new changing program data. When the program of the NE 1 (21) is changed, the NMS 10 transmits a command signal to the NE 1 (21) indicating that the NE 1 (21) should transmit the newly changed program data stored thereon to the NE 2 (22) in order to change the program of the NE 2 as well as the “~~program-changing~~data-changing signal” to the NE 2 (22). In the following description, the command signal dictating that the

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predetermined node, i.e., the NE 1 (21), should transmit the newly changed program data stored therein to other predetermined node, i.e., the NE 2 (22), is referred to as “a data-transmitting signal”. The “~~program-changing~~data-changing signal” transmitted from the NMS 10 to the NE 1 (21) is transmitted to the NE 2 (22) via the NE 1 (21). Then, the data-transmitting signal outputted from the NMS 10 is transmitted to the NE 1 (21) so that the NE 1 (21) transmits the newly changed program data stored in the memory thereof to the NE 2 (22). Through this process, the NMS 10 can change the program data of the NE 2 (22) using the newly changed program data stored in the memory of the NE 1 (21). That is, the newly changed program data stored in the memory of the NE 1 (21) is directly transmitted to the NE 2 (22), instead of being transmitted from the NMS 10 to the NE2 (22) via the NE 1 (21) as in the prior art, thereby reducing the number of the traffic hops. For the NE 3 (23) and the NE 4 (24), the process of changing program data of the NE 3 (23) and the NE 4 (24) can also be performed through the above-mentioned process. Accordingly, when the program of the transmission system forming each node is changed to the new changing program data as explain above, the number of traffic hops of the nodes arranged in the loop-shaped transmission network can be expressed by the following [formula 3]:--

Replace the paragraph bridging pages 12 and 13 with the following paragraph:

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-- The NMS 10 is connected to a transmission system, i.e., NE 1 (21) forming a first node, which is connected to a transmission system, i.e., NE 2 (22) forming a second node, which is also connected to a transmission system, i.e., NE 3 (23) forming

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a third node. In the event that the NMS 10 attempts to change the program of each node (21), (22), (23), and (24) arranged in the linear-shaped transmission network, the program of the NE 1 (21) is initially changed. Accordingly, the NMS 10 transmits the "~~program-changing~~data-changing signal" along with the new changing program data to the NE 1 (21). Then, the new changing program data received by the NE 1 (21) is stored in a fixed memory of the NE 1 (21) and the program of the NE 1 (21) is changed to the new changing program data under the control of the "~~program-changing~~data-changing signal." In this manner, after the program of the NE 1 (21) is changed to the new changing program data transmitted from the NMS 10, the NMS 10 transmits a "program-transmitting signal," or a command signal to the NE 1 (21), dictating the NE 1 (21) to transmit the newly changed program data stored therein to the NE 2 (22) in order to change the program of the NE 2, while transmitting the "~~program-changing~~data-changing signal" to the NE 2 (22).--

